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6761 HENDERSON'S
WHEATS, GRASSES, ETC.

FOR FALL SOWING

1911



Peter Henderson & Co., 35 and 37 Cortlandt Street, New York

HENDERSON'S SUPERIOR WINTER SEED WHEAT

Prices are subject to the Fluctuations of the Market. Delivery F. O. B. New York, bags extra
The Prices herein named are those ruling August, 1911

PETER HENDERSON & CO. give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any Seeds, Bulbs or Plants they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are at once to be returned.



NEW WHEAT
"St. Louis Grand Prize"

Jones' St. Louis Grand Prize Wheat (Beardless)

This grand new wheat is destined to become a standard "rough and ready" variety, being equally at home on all soils, thriving on light, sandy, gravelly, clay loam or river bottom lands, and it is as nearly fly proof as it is possible for a wheat to be. It is a strong, healthy grower, with dark, wide foliage, starting into growth among the earliest in spring. Straw medium tall, very stocky and thick walled; heads square and compactly set from base to tip; kernels short but very large and plump; color medium dark red and of good milling quality.

We expect St. Louis Grand Prize Wheat to make a big record everywhere. Mr. Jones says his field of it in northern New York was noted as the best field of wheat in all of that section. Just as even as a floor. Every head standing erect and not a straw out of place.

Price, $\frac{1}{2}$ bushel, \$2.25; bushel, \$4.00; in 10-bushel lots, per bushel, \$3.75.

Jones' Red Wave (Beardless)

After several years' trial this grand wheat has fully maintained the good opinion expressed when first sent out in 1906. Customers in all winter wheat growing sections know the Jones' wheats wherever sown have made a grand record, and will be pleased to hear of this fine Bald Red variety. It is a cross between early Red Clawson and an unnamed crossbreed of Russian parentage. All progressive farmers should give this sort a trial, as seed of this will be in great demand as soon as known, and those who are fortunate enough to have a field in 1912, will find it to be a profitable investment. It is a bald Brown-chaff, dark, medium long, large grain; heads very long and broad, filled with medium, long, large, hard,

dark kernels, rich in gluten. Straw, golden; above medium height, stocky, very strong, thick walled and not liable to go down; heads slightly leaning, hence not liable to sprout in the field. This variety gave a yield of 49 bushels and 2 pounds per acre in a field, the balance of which was sown to Dawson Golden Chaff that produced only 27 bushels per acre. Part of the first swath between the two going into the Dawson for fear of stray heads of Dawson; also rakings adjoining, thus cutting the yield nearly a bushel. A plot on trial grounds $1\frac{1}{4}$ by 2 rods square produced at the rate of 68 bushels and 5 pounds per acre.

Price, \$2.75 per bushel; 10-bushel lots, \$2.65 per bushel.

It costs almost as much to lay down an acre of wheat that yields only 15 bushels per acre as one that will yield from 35 to 50 bushels. The first scarcely returns the cost of the investment while the latter yields a handsome profit. The leading essential needed to attain such results is to sow Henderson's Superior Seed Wheat, which is grown specially for seed purposes.

PETER HENDERSON & CO. give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any Seeds, Bulbs or Plants they send out, and they will not be in any way responsible for the crop, if the purchaser does not accept the goods on these terms, they are at once to be returned.

PETER HENDERSON & CO.,
35 and 37 Cortlandt Street, New York.

Date..... 1911

State if wanted by Mail; Express (and Company); Freight (and Route); Steamer (and Line).

AMOUNT ENCLOSED

\$(State whether Cash, Draft, P. O. Order, Express Money Order or Stamps)
(If goods are wanted by express, C. O. D., 25 per cent. of the amount must accompany the order.)

County; State

(Only if different from P. O.)

(That we may enter his name for Catalogues.)

Small quantities are wanted by express or mail, we will prepay postage or carriage, IF 8 CENTS PER LB. IS ADDED TO THE PRICES.

We make no charge for packing or cartage of goods to any railroad station, steamship line or express office in New York City. Consignee pays the transportation charges.

CLOTH BAGS only we charge for, and these at cost, viz: 1 peck, 10c.; $\frac{1}{2}$ bushel, 12c.; 1 bushel, 15c.; 2 bushel, 20c. ALL GRASS SEED BAGS, excepting bags for Timothy and Clover, are furnished free.

SPECIAL PACKING for FOREIGN SHIPMENTS, in tin-lined cases or double sacks, charged at cost

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SILVER SHEAF LONGBERRY RED (Bearded)

The most perfect Longberry Red Wheat grown, and will make a sensation among wheat growers and millers as soon as known. This marvel originated from a cross between the well-known American Bronze and a cross from Lancaster and a seedling Longberry. It is one of the hardiest of all wheats, a strong, healthy grower and can be sown very late. If sown early, $1\frac{1}{2}$ bushels of seed per acre will be enough on strong soil. Straw of light yellow color, medium tall, thick-walled and strong; head long, wide and full; chaff thin and silvery-white; grain large, dark and flinty, and nearly as long as rye kernels. It will command the highest market price of any Longberry yet grown, and will be the leading fancy milling wheat of this country. (See cut.)

Price, \$2.50 per bushel. 10-bushel lots, \$2.40 per bushel.

JONES' BEARDED LONGBERRY (No. 1)

We are confident that this variety will prove to be the most profitable Longberry yet known—it is the result of experiments in crossing this type covering several years—and we feel that it will rapidly displace the old Longberries now no longer profitable on account of weak vitality and light yield, although their quality is the standard by which all other sorts are judged. JONES' BEARDED LONGBERRY (No. 1) is a grand variety and one of the most productive, hardy and profitable sorts ever sent out. It has made a record of $54\frac{1}{2}$ bushels per acre. It has a sturdy, wiry straw of good length, not liable to lodge even on very fertile soil; heads long, wide and exceptionally well filled, bearded and of a rich brown shade; kernels large and long, of an attractive blending of red

and amber, indicating to millers its high milling character and requisite hardness for producing a fine grade of flour. Especially adapted for late sowing, giving large yields when sown in October.

Price, \$2.50 per bushel; 10-bushel lots \$2.40 per bushel.

PRIDE OF GENESEE (Bearded)

One of the most productive varieties, having a long, well-filled head, and the fact that it will give a reasonably good crop on land so poor that common sorts would be a failure, cannot fail to make it a popular sort, as the head does not decrease in proportion to the straw, being large and well filled on a very short, light growth of straw.

Price, \$2.50 per bushel; 10-bushel lots, \$2.40 per bushel.

CLAWSON LONGBERRY (Beardless)

This grand cross-bred Longberry was produced from the same blood that bore the famous Red Clawson crossed with Longberry stock. It resembles, in some respects, Red Clawson in the field, but is a stronger grower and more prolific stooler, and has sturdy, wiry straw. Heads long, wide and full; chaff, brown and free from beards; grain, dark amber of the finest quality, large, long, and of true Longberry type. Like its parents, it delights in strong clay loam, and on such soil, with thorough preparation, it will often yield fifty bushels or more per acre. It is largely grown by some of the best wheat growers, by whom it is highly recommended. Sow $1\frac{1}{2}$ bushels per acre.

Price, \$2.60 per bushel; 10-bushel lots, \$2.50 per bushel.

GOLD COIN (Beardless)

A very popular wheat that the increasing demand for the seed would indicate is a most satisfactory variety over a large extent of territory. It is unusually productive, having yielded over 60 bushels per acre—while 50 and over is not unusual—and even on large acreages it seldom runs under 40 bushels per acre.

The straw is very stiff and does not lodge even on the richest land. The head is long and compactly filled with choice white grain, frequently having five kernels abreast. (See cut.)

Price \$2.50 per bushel; 10-bushel lots \$2.40 per bushel.



GOLD COIN.

We shall be pleased to make Special Prices (where possible) to buyers of large quantities of Grain or Grass Seed. WRITE US

TWO GRAND
WINTER WHEATS

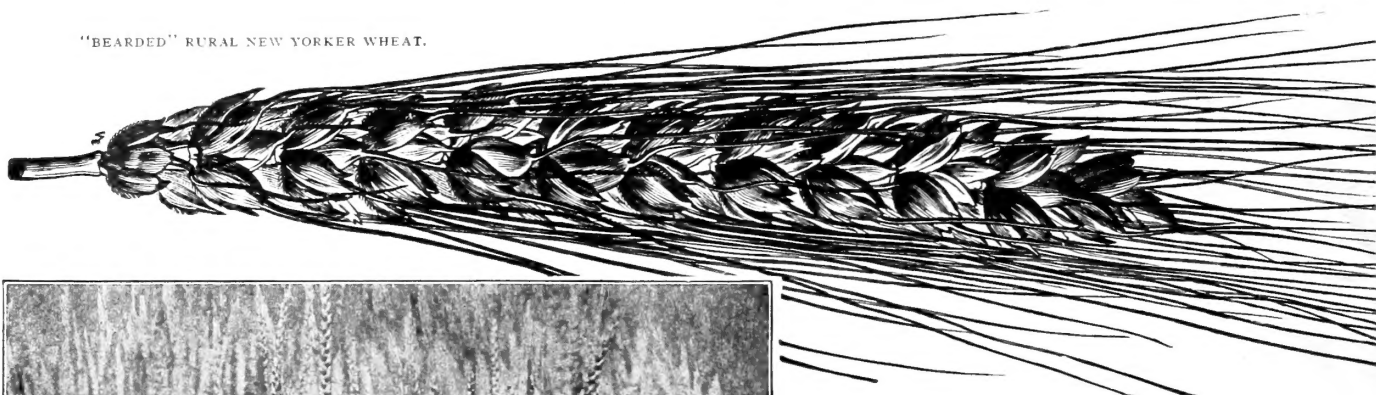
Rural New Yorker

BEARDED
AND BEARDLESS

These are both the result of upwards of twenty years' thoroughly scientific crossing and careful selection at the hands of the late Mr. E. S. Carman, the well-known editor of the *Rural New Yorker*, and raiser of many of the most valuable agricultural introductions of

recent years. These two varieties have been selected from hundreds of crosses and varieties as superior in all desirable qualities. They have now been grown in most wheat-growing sections, and most flattering testimony has been received by us regarding their merits.

"BEARDED" RURAL NEW YORKER WHEAT.



"BEARDLESS" RURAL NEW YORKER WHEAT.

"Bearded" Rural New Yorker (NUMBER 57)

has heavily-bearded heads which are beautifully symmetrical, being pointed at the tip, broad in the middle, and tapering toward the stem. The straw is unusually tall and strong and stools freely, frequently having 35 to 40 stalks from a single grain. The heads are compact, averaging three kernels to a spikelet or "breast," and ten breasts to a side. The kernels are of medium size and of an attractive color, between the so-called "red" and amber, possessing the requisite degree of hardness for the production of the finest grade of flour, and is much sought after by millers. The chaff is clear white, with a trace of velvet sufficient to make it difficult for the green fly to attack it, and the heads do not mildew as the full velvet chaff varieties are liable to do. (See cut.)

Price, \$2.50 per bushel; 10-bushel lots, \$2.40 per bushel.

"Beardless" Rural New Yorker (NUMBER 6)

This beardless variety is a hybrid between Rye and Armstrong Wheat, though all traces of Rye have disappeared and it now appears a handsome, beardless Wheat. It succeeds and produces heavy crops on poor, thin land, where Wheat could not be successfully or profitably grown and it also has extreme hardness to recommend it. When first raised, some years ago, the top of the culms was downy with Rye culms. This characteristic could not be fixed, so that for this variety the culms having no down were alone selected. The gold-colored straw is very thick and strong, easily supporting the heavy grain without breaking. The large amber kernels are placed four to a breast, eight breasts to a side, with long symmetrical heads having a brown shaft. (See cut.) One of our growers says:

"It stools as strong as any wheat I ever saw. It had a vigorous, healthy growth all the season, and stood well without lodging. It is very hardy."

Price, \$2.50 per bushel; 10-bushel lots, \$2.40 per bushel.

Henderson's Superior Seeds are procurable only from us direct—we do not supply through dealers

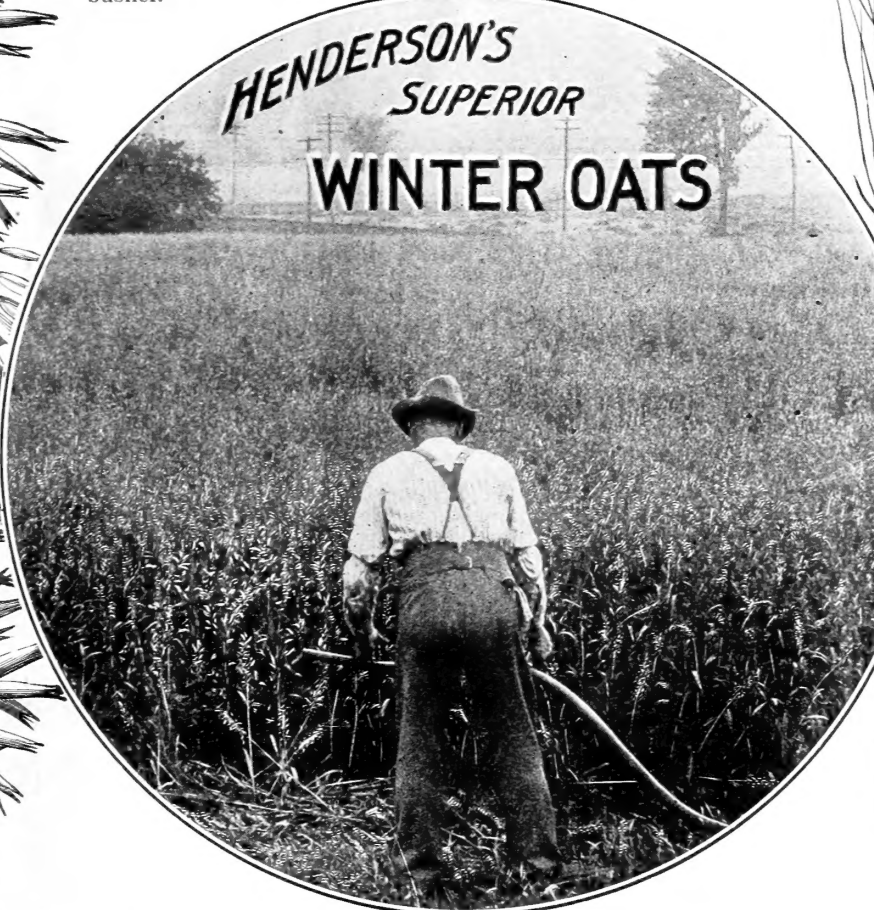
HENDERSON'S SUPERIOR... WINTER OATS.

WINTER OR TURF OATS are quite extensively grown in the Southern States, where they are in high favor. Sown in the fall they either afford excellent pasturage during the winter or give abundant yield the following season.

The demand for oats of this character has been gradually extending northward, and to meet it we have been growing in Northern Pennsylvania, for several years, an acclimatized strain which is remarkably hardy and will stand the winter as far north as New Jersey. They are incomparably superior to the Winter or Turf Oats of Virginia; they stool out strongly, are earlier, more vigorous and less susceptible to rust; they have stiff straw, stand up well, and are much more productive than Spring Oats. Sow in September, at the rate of $1\frac{1}{2}$ bushels per acre, and sow deep. They will stand much more severe weather when planted four inches deep than near the surface. (See cut.) 40c. peck, \$1.25 bushel of 32 lbs.; 10-bushel lots and upwards, \$1.20 bushel.



Winter Oats.



HENDERSON'S SUPERIOR... WINTER RYE.



Giant Winter Rye.

Rye is a valuable crop for either soiling, green fodder, straw or grain. It is largely used by farmers to seed down with in the fall, and is considered preferable to wheat for this purpose, as it protects the young grass, and matures two weeks earlier in the summer than wheat.

Winter.—The variety most commonly cultivated. \$1.60 bushel of 56 lbs.; 10-bushel lots, \$1.50 bushel.

Excelsior Winter.—A new variety from Vermont that has never failed to yield at the rate of 40 to 50 bushels per acre. With the originator, a four-acre field yielded 52 bushels to the acre. \$1.75 bushel of 56 lbs.; 10-bushel lots, \$1.65 bushel.

Thousandfold.—Said to be the most productive Rye in cultivation. \$1.75 bushel of 56 lbs.; 10-bushel lots, \$1.65 bushel.

Giant Winter.—Unquestionably the heaviest cropping Rye in existence, having in fair tests outyielded all other varieties both in straw and grain. The heads average six to eight inches in length and are filled from end to end with large, plump, heavy grains. The straw is giant in length and strength and of extraordinary stiffness, resisting severe wind and rain storms to a remarkable degree without lodging. (See cut.) \$2.00 bushel of 56 lbs.; 10-bushel lots, \$1.90 bushel.

We are always pleased to hear from our farmer friends and offer any advice free on subjects connected with farm crops, etc.

"GRASS IS KING"

GOOD GRASS IS THE FOUNDATION OF AGRICULTURE

"NO GRASS, NO CATTLE; NO CATTLE, NO MANURE; NO MANURE, NO CROPS!"—Old Proverb

It has been fully demonstrated by the careful trials conducted by the Agricultural Experiment Stations in various parts of the country that good pasturage, and good hay crops can be best secured by sowing grass seeds in mixtures. Pastures seeded naturally are always found to contain many varieties of grasses growing and flourishing side by side without detriment to each other, and attaining their maximum of growth at different periods of the year. It is to this notable characteristic that such pastures furnish continually an abundant bite, when meadows and pastures composed of but a few varieties are brown and bare.

Another great advantage in sowing grass seed mixtures is that full use is made of the land. The various grasses being of different habit, seek the food they require at unequal depths in the soil, some being shallow-rooted in habit and some deep-rooted; thus every strata of soil is utilized, and a far greater number of plants grow and flourish in a given space. We have been for years well aware of the above facts, through our own exhaustive experiments and studies, and no better meadows or pastures can be found than those laid down with our various grass seed mixtures. They comprise the following:

Henderson's Special Grass Mixture for Hay and Permanent Pasture COMBINED

Henderson's Special Grass Mixture for Permanent Pasture

Henderson's Special Grass Mixture for Permanent Hay

Henderson's Renovating Mixture for Improving Old Pastures

Henderson's Special Grass Mixture for Woodland Pastures

Fully described on pages 7, 8, 9 and 10.

These famous mixtures have seeded thousands of acres of meadow and pasture land for progressive farmers and stock raisers in various parts of the United States, with most gratifying results. They are well-balanced combinations of a number of native and acclimated foreign grasses and clovers, blended and improved upon during exhaustive trials under widely varied conditions, soils and localities for several years, until practically perfect, our aim being to produce, under the extremes of the American climate of heat, drought and cold, a PERMANENT, dense and deep-rooting turf that would yield year after year the maximum quantity of forage. These grasses are of superior quality, inviting, sweet and nourishing, whether used as hay or pasture. That we have been successful is attested by the numerous letters of praise for these special grass mixtures that we have received

from the users, and the tributes to their merits published in many of the agricultural journals. Space permits us to print extracts from but a few of these encomiums.

A Description of Soil and Locality should be given when ordering. In the preparation of these mixtures for permanent pasture, the greatest care is exercised in selecting such varieties as are suited to the soil to be sown and are likely to realize the object in view. To facilitate this, a **description of the soil and climate, and the purpose for which sown**, and if **with or without a grain crop**, should accompany each order.

FULL DIRECTIONS FOR SOWING ENCLOSED IN EVERY BAG.

Prices, \$2.75 per bushel of 14 lbs.; 50 bushels @ \$2.65; 100 bushels @ \$2.60.

Mixed Permanent Clovers

10 POUNDS REQUIRED FOR 1 ACRE, \$3.00

JUST HARVESTED THE TENTH CROP OF MOST SATISFACTORY HAY

"It may interest you to hear as it is a pleasure to me to be able to inform you that from the Permanent Pasture Grass Seed purchased from you six years ago, I have just harvested the tenth crop of most satisfactory hay. This makes two good crops for each of the five years after sowing. The remarks 'What a beautiful field it is' and 'It looks like a lawn' are often made and they please me greatly."

GEORGE MOORE, Fanwood, N. J.

IT SELLS ITSELF

"The Special Grass Seed you sold me last September has turned out so well that I am ordering more to seed another field."

Mr. JOHN C. HUNT, Mt. Kisco, N. Y.

SURPASSED EXPECTATIONS

"I am pleased to report that your Special Grass Mixture for Hay and Pasture sowed by me three years ago on an eight acre field, has surpassed my expectations."

ARNOLD C. SAPORTAS, Pocantico Hills, N. Y.

WOULD DO YOUR HEART GOOD TO SEE IT

"I wish you could see my Permanent Grass; it would do your heart good. I expect a very big crop."

R. P. McGRANN, Grand View Farms, Lancaster, Pa.

Should be sown in addition to the above grass mixtures, but on account of greater weight the clover should be sown separately, and in cold latitudes, in the spring. This mixed clover comprises White, Mammoth Perennial or Cow Grass, Alsike, etc.

DRY SUMMER, BUT IT FILLED OUT A FINE SOD

"I sowed 2 acres with your Permanent Pasture mixture and am delighted with the quality. It was a very dry summer to start with and if it had been timothy would have been obliged to reseed, but it filled out a fine sod; cut a second crop when timothy cuts none."

W. E. HARRIS, East Douglass, Mass.

IT PAYS TO CHANGE FROM TIMOTHY

"I desire to advise you that I am changing all my fields from Timothy to your Permanent Grass Seed as I find the latter to be entirely satisfactory. My horses and cattle relish it very much more and my crops have been considerably increased."

W. D. HENRY, Irvington Farm, Sewickley, Pa.

SEVERE DROUGHT, BUT EXCELLENT PASTURE

"Your Special Grass Mixture has done well for me. It produced this season, the largest crop of hay that I ever saw cut off the ground, and has been yielding a most excellent pasture for over a month past, and this notwithstanding the extraordinary severity of the drought in this vicinity."

R. S. TAYLOR, Fort Wayne, Ind.

ONCE TRIED, ALWAYS USED

"I telegraphed you today to ship me enough Permanent Pasture Grass seed to sow 20 acres. About seven years ago I seeded a piece with your Pasture and Hay Mixture with wonderful results."

E. C. DUNCON, Clarksville, Mo.

HENDERSON'S SPECIAL GRASS MIXTURE FOR HAY AND PERMANENT PASTURE



PRODUCES WONDERFUL HAY CROPS AND LUXURIANT PASTURE

The Yield of Hay under favorable conditions averages 3 to 4 tons per acre at the first cutting, or nearly double that of Timothy and Clover, and larger yields are not unusual; then, if not pastured, the second crop is usually about one-half the quantity of the first. This shows the great value of this special mixture of grasses over Timothy which seldom yields a second crop, nor can it be pastured after cutting without seriously damaging the next season's yield, for Timothy after cutting throws its strength into its bulbous base, on which its yield the next season depends.

Pasturage. After the hay crop is cut the grass commences to grow at once, recovering its verdure in a few days' time and affording a continuous pasturage even through dry summer weather, until winter sets in; or the field may be pastured from earliest spring and still be in prime condition for yielding hay or pasture the next season, and so on year after year, for the various grasses composing this special mixture are all dense, fibrous-rooting varieties, sustaining no injury from cropping—proving its value over Timothy, which would be injured, probably ruined, under similar conditions.

In Earliness this special grass mixture is about two weeks ahead of Timothy, enabling the haying to be finished before grain harvesting presses. This earliness gives a longer growing season for the aftermath, whether it is to be pastured or again cut for hay.

Permanency. Henderson's Special Grass Mixture for Hay and Permanent Pasture, if properly laid down, will maintain its heavy cropping qualities twenty years and more if occasionally top-

dressed with manure or suitable commercial fertilizer, and it will steadily improve, whereas a stand of Timothy soon commences to become thin and in three or four years must be plowed up and resown or rotated—with all the attendant expense.

Heat and Drought-Resisting. The various kinds of grasses composing this special mixture are fibrous, deep-rooting varieties that spread and intermingle, forming a tough matted sod, free from stooling or tussock growth, and, in consequence, the grasses protect their own roots and are therefore less susceptible to extremes of heat and drought, retaining their verdure even through dry, hot weather, when Timothy is burned up.

The Seed Required. The amount of seed necessary to sow an acre largely depends on the quality of the land; the poorer the soil the larger the quantity required. Taking one soil with another, and owing to the fact that the seeds we use are of higher quality and better cleaned than ever, a fair average would be **3 bushels to the acre.** The thicker the seeds are sown the sooner will a fine, close turf be obtained. It may be sown either spring or fall.

The Initial Cost is More in seeding with Henderson's Special Grass Mixture, but the ultimate returns are much more profitable than those from ordinary hay and pasture fields, and when the other advantages are considered—including the permanency of a maintained yield—the first expense will be found a paying and satisfactory investment.

PRICES Henderson's Special Grass Mixture for Hay and Permanent Pasture

For Light Soils, Medium Soils or Heavy Soils (state which in ordering)

\$2.75 per bushel of 14 lbs.; 50 bushels @ \$2.65; 100 bushels @ \$2.60. Mixed Permanent Clovers, 10 lbs. sufficient to sow an acre, \$3.00; should be sown in spring. (See page 2.)

"The grass seed mixture I got from you last spring made a good sod and is admired by farmers here. It is all you claimed for it. Some think the price is high, but I tell them, 'I did not buy weeds to seed my land.'"

M. RILEY, Mt. Savage, Md.

"It may interest you to know that I am growing the best grass I ever saw. I laid down one piece of land last spring with your seed mixture, I laid down one piece of land with the seed mixture of Herd's Grass and Timothy. The 'Special' grass is looking better. I had to plow up the Herd's grass—all played out. I sowed your seed in 1907. It is looking nice." GEO. M. HODGES, S. D.

HENDERSON'S SPECIAL GRASS MIXTURE FOR PERMANENT PASTURE

SUPPLIES CONTINUOUS AND ABUNDANT PASTURAGE FOR 20 YEARS AND MORE



Provides Nourishing Forage from Early Spring until Winter Snows,
and is Green and Succulent All Summer Long,
When Ordinary Grazing Lands are Burned Brown

There is no more important part of a farm than a good pasture, and that can only be obtained by the use of the proper grasses, varieties that have different root formations and different habits and seasons of growth, in order to maintain a **rich, close turf throughout the entire season**. Timothy should never be used for pasture, because it will *not* stand trampling, and soon runs out when heavily pastured and at best is short-lived, as compared with the permanent grasses used in our Special Mixtures. These Mixtures contain over a dozen of the best permanent grasses, both American-grown and imported. All are permanent, and when once established **will last indefinitely**, if the fertility of the soil is kept up by occasional top-dressing. Owing to the different habits of growth, the grasses grow closer together and form a rich, close turf, covering the soil completely and forming a protection to the roots during hot, dry weather, **thereby enabling these grasses to maintain a rich green appearance when Timothy and other grasses are burned up**. The thick turf also prevents animals poaching through and destroying the pasture.

We have for years studied the subject of pastures and their formation with exhaustive tests on our own trial farms, where we have had growing separately and in different mixtures all the grasses of which seed can be procured in commercial quantities. These trials have been broadly studied and the results watched with critical interest on the farms of our customers. We are in an unrivalled position to advise you on the subject and to supply suitable grass seeds for Permanent Pasture. While it costs a little more to seed an acre with this special mixture, yet results are so superior and permanent that they more than offset the original cost. Sow not less than 3 bushels per acre. Directions enclosed in every bag. **PRICE, \$2.75 per bushel; of 14 lbs. 50 bushels @ \$2.65; 100 bushels @ \$2.60.** (State whether wanted for light, medium or heavy soils.)

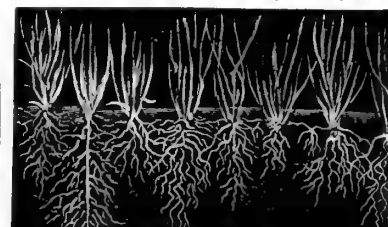
Mixed Permanent Clovers, 10 lbs. sufficient to sow an acre, \$3.00. Should be sown in spring. (See page 2.)

"Herewith is enclosed photograph taken in June, 1910, of Henderson's Permanent Pasture grass 15 years after seeding. (Photo shows luxuriant crop.)"

JOHN B. MARCON,
Woodside, Princeton, Mass.

"I wish to say that about 8 years ago I bought a large quantity of your Mixed Permanent Grass Seed, which has given us most splendid crops of hay every year since."

E. L. NEWBOLD, Irvine, Pa.



The grasses found in mixtures draw their food from the soil at various depths—having different root formations.

Thus the land is utilized to the fullest extent.



HENDERSON'S
SPECIAL GRASS MIXTURE
FOR
PERMANENT HAY

CUTTING A FIELD OF HENDERSON'S SPECIAL GRASS MIXTURE FOR PERMANENT HAY ON ESTATE OF PAUL D. CRAVATH, ESQ., LOCUST VALLEY, L. I.

HENDERSON'S SPECIAL
GRASS MIXTURE FOR

PERMANENT HAY

Produces Double
the Quantity of
Timothy and Clover

and Maintains the Yield 20 Years
and More

SUPPLIES A GOOD CROP OF

HAY

In Dry Seasons when Ordinary
Hayfields are Burned up

Quality Superior

Although the most widely cultivated hay grass in the United States is Timothy, or a mixture of Timothy and Clover, and while they answer the purpose admirably on farms where the soil is suitable and where the usual three and four years' rotation is carried on, yet there are many other grasses which will yield more profitable returns.

The competition of the Western States on wheat, corn and other grain has made the growing of grain in the Eastern States and the usual rotation farming unprofitable, but hay still yields a fair profit, and the farmer whose land is sown with a proper mixture of Permanent Grasses, requiring only an occasional top-dressing of manure or fertilizer to MAINTAIN THEIR HEAVY CROPPING QUALITIES FOR TWENTY YEARS OR MORE does away with the necessity for plowing and rotation cropping with all its attendant expense.

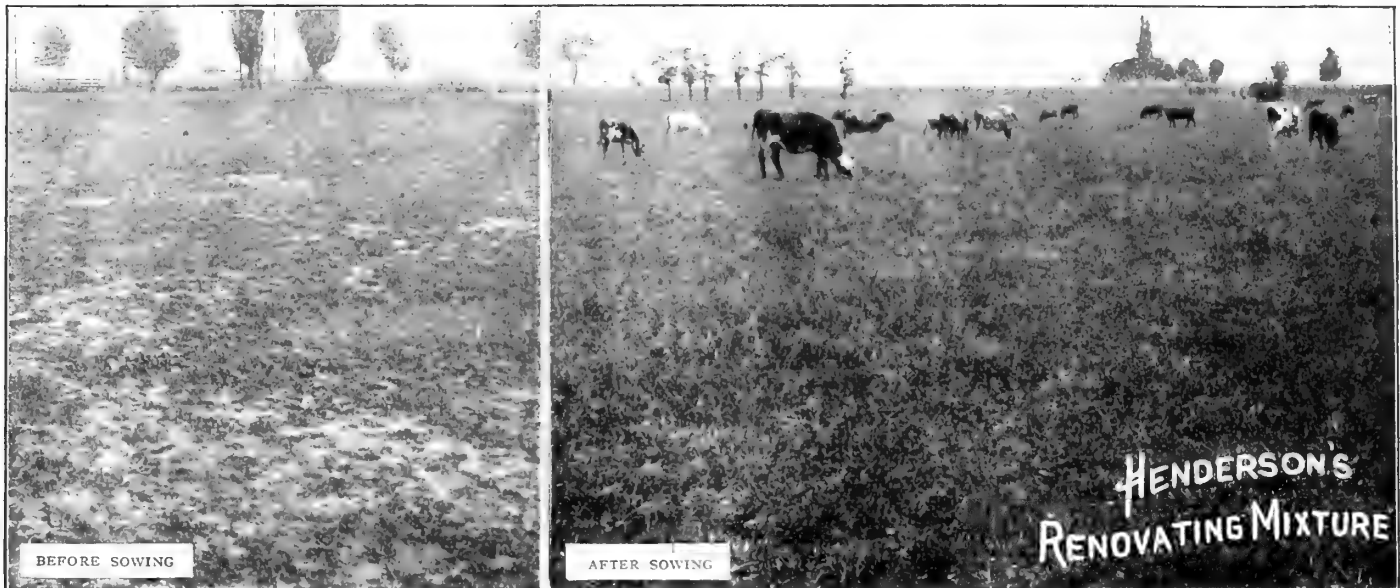
The most serious item of expense on the farm, the labor bill, can be largely reduced and thus give reasonable prospect of profitable annual returns at a minimum of labor and expense. The seed of these Permanent Grasses is more costly than Timothy, and more is required per acre, but by reason of their heavy cropping qualities and permanency they soon repay the extra cost and leave a handsome margin for the farmer, when the cost of plowing, harrowing and re-seeding Timothy every three and four years is taken into consideration.

The grasses used in this Mixture recover quickly after the hay crop is cut, and yield either a second crop or pasture in the greatest abundance during the summer and autumn months. Within a few days after cutting, their rich green appearance as compared with Timothy is a desirable feature, especially in fields close to the house, as it gives a park-lawn effect to the surroundings. Sow 3 bushels per acre. Directions in every bag. Price, \$2.75 per bushel of 14 lbs.; 50 bushels @ \$2.65; 100 bushels @ \$2.60. (State of New York wanted for light, medium or heavy soils.) Mixed Permanent Clovers, 10 bushels @ \$3.00 to sow an acre, \$3.00; should be sown in spring. (See page 2.)

THE DIFFERENCE BETWEEN SEEDS AND HENDERSON'S SEEDS.
Prof. WILLIAM P. BROOKS, of the Hatch Experiment Station, Amherst, Mass., writes us: "AFTER CAREFUL EXAMINATION OF SAMPLES from various sources and comparison of purity, germination and price I have decided on ordering of you the greater proportion of my seed requirements."

Henderson's Renovating Mixture

FOR IMPROVING OLD PASTURES



Grass lands, in consequence of being constantly mown or pastured without being fertilized or manured, frequently become impoverished and deficient in the more valuable and nutritious grasses, and in time become unprofitable. It is frequently unnecessary to plow up such land unless it be full of weeds. The turf should be well harrowed with a sharp-tooth harrow, and, if possible, top-dressed with soil and well-rotted stable manure, which should be well harrowed in, and then sown with **HENDERSON'S RENOVATING MIXTURE**, at the rate of one bushel per acre, and five pounds of mixed

clovers. This mixture is composed of those sorts that are best suited for sowing on old pastures or meadows, and it **will speedily improve the quality and increase the produce**. March and April are the best months for sowing, choosing an interval between rains if possible, though, if inconvenient to sow then, very satisfactory results can be obtained by fall sowing. After sowing, the ground should be lightly harrowed and afterward well rolled.

Price, \$2.75 per bushel of 14 lbs.; 50 bushel lots, \$2.65 per bushel. Mixed Clovers, 5 lbs. sufficient to renovate an acre, \$1.50.

HENDERSON'S SPECIAL GRASS MIXTURE FOR

∴ ∴ **WOODLAND PASTURES**



Unless there is a superabundance of nitrogen in the soil and a consequent excessive wood growth, in which case it is desirable to sow the land with grasses, it is now customary to sow orchards with cover crops, such as Cow Peas, Clover, etc. These are plowed under and the orchard kept in constant cultivation. But where it is desired to sow the orchard with grass, or for woodland pastures, even when the shade is comparatively dense, we can with all confidence recommend this mixture.

It is composed of a selection of grasses which from exhaustive experiments we have found will thrive under trees. Orchard Grass is, of course, one of the best grasses for the purpose, but this mixture is much superior, as it will make a closer and more even pasture than Orchard Grass alone.

Price, \$2.75 per bushel of 14 lbs.; 50 bushel lots, \$2.65 per bushel.

Henderson's Recleaned Grass Seeds

FOR FALL SOWING.

Special quotations for large quantities.
Prices subject to variation.

Henderson's Superior Grass Seeds

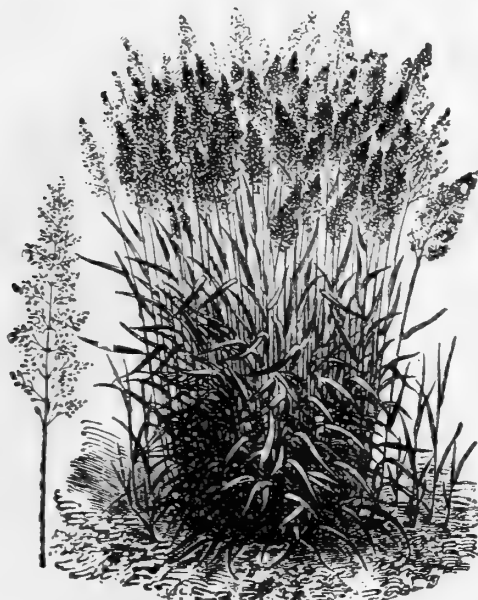
are of high germination and of choicest, recleaned quality. Our warehouses (250,000 bushels capacity), being especially equipped with the most modern seed-cleaning machinery, enable us to supply Recleaned Grass Seeds of undoubted superiority at lowest possible prices when quality is considered. We are to-day the largest suppliers of recleaned grass seeds direct to the farmer, and if at times lower prices are quoted, depend upon it that it is at the sacrifice of quality, for we are so equipped that NO ONE CAN UNDERSELL US FOR THE SAME QUALITIES.

At both the Pan-American Exposition and the World's Fair we received

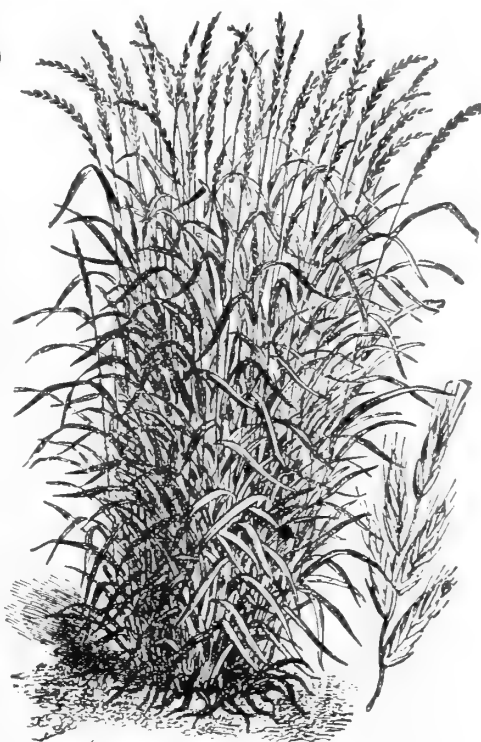
SIXTY-FIVE MEDALS AND AWARDS, a large proportion of which were granted to our Grasses and Clovers for superior quality and purity of sample.

"After careful examination of samples from various sources and comparison of purity, germination and price, I have decided on ordering of you the greater proportion of grass seeds needed here at this time."

WM. P. BROOKS,
Amherst, Mass.

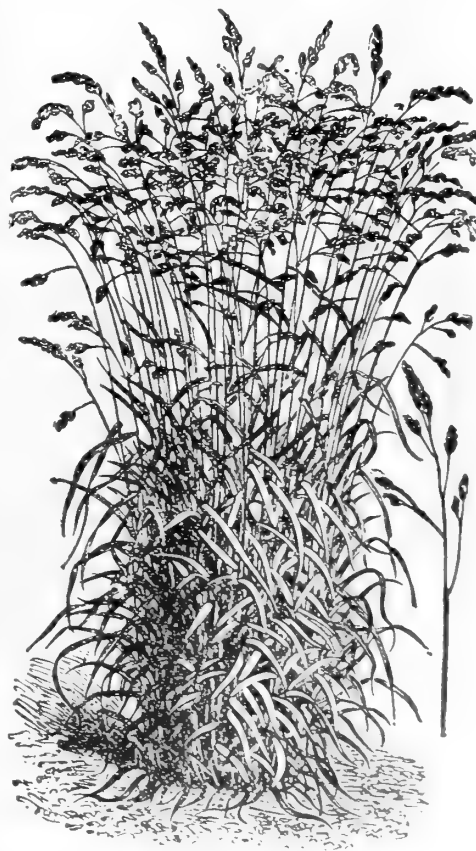


RED TOP.



ITALIAN RYE GRASS.

| | Weight per bush. | Per bush. | Per lb. | Per 100 lbs. |
|--|---------------------|--------------|------------|-----------------|
| AWNLESS BROME GRASS. (<i>Bromus Inermis</i> .) A new forage plant of the utmost importance, particularly in dry and Southern sections; yields enormously | 14 lbs. | \$2.50 | \$0.20 | \$16.00 |
| BERMUDA. (<i>Cynodon Dactylon</i> .) Valuable for Southern States, withstands the heat and drought | 35 lbs. | 1.25 | | 115.00 |
| Canada Blue Grass. Useful for sowing on hard clay and poor soils. | 14 lbs. | 2.75 | .22 | 18.00 |
| Creeping Bent Grass. (<i>Agrostis Stolonifera</i> .) Excellent for lawns; succeeds well in moist situations. About 2 bushels to the acre | 20 lbs. | 8.50 | .45 | 40.00 |
| Crested Dog's Tail. (<i>Cynosurus Cristatus</i> .) Should enter in moderate quantity in permanent pasture mixtures and lawns | 21 lbs. | 8.75 | .45 | 40.00 |
| ENGLISH RYE GRASS. (<i>Lolium Perenne</i> .) A valuable Grass. 2 1/2 to 3 bushels to the acre | 24 lbs. | 2.15 | .12 | 9.00 |
| Fine-Leaved Sheep's Fescue. (<i>Festuca Ovina Tenuifolia</i>) | 14 lbs. | 6.50 | .50 | 40.00 |
| HARD FESCUE. (<i>Festuca Duriuscula</i> .) Dwarf, hardy grass, of great value for dry situations, indicates superior quality in hay | 12 lbs. | 4.00 | .35 | 30.00 |
| HUNGARIAN GRASS. (<i>Panicum Germanicum</i> .) Is a valuable annual forage plant. 1 bushel to the acre. Price variable. 10-bu. lots, \$2.40 | 48 lbs. | 2.50 | | |
| ITALIAN RYE GRASS. (<i>Lolium Italicum</i> .) Unequaled for producing an abundance of early spring feed, giving quick and successive growths throughout the season | 18 lbs. | 2.00 | .12 | 9.50 |
| Johnson Grass. (<i>Sorghum Halapense</i> .) Of greatest importance for the South. Very tender and nutritious | 25 lbs. | 7.00 | .30 | 25.00 |
| KENTUCKY BLUE GRASS. (<i>Poa Pratensis</i> .) Very valuable for a variety of soils from moist to dry, furnishes delicious and luxuriant pasturage and makes excellent hay. Fancy or double extra clean | 14 lbs. | 5.50 | .42 | 38.00 |
| MEADOW FESCUE. (<i>Festuca Pratensis</i> .) Of great value for permanent pasture and hay, robust grower and nutritious | 22 lbs. | 9.50 | .45 | 40.00 |
| MEADOW FOXTAIL. (<i>Alopecurus Pratensis</i> .) Resembles Timothy, but of much earlier and more rapid growth, particularly valuable for permanent pastures and hay | 7 lbs. | 2.60 | .40 | 35.00 |
| ORCHARD GRASS. (<i>Dactylis Glomerata</i> .) One of the most valuable of all grasses, for either grazing or mowing, of early, rapid and luxuriant growth. (See cut.) | 14 lbs. | 4.50 | .35 | 30.00 |
| Red or Creeping Fescue. (<i>Festuca Rubra</i> .) Suitable for sandy sea-coasts and dry soils. | 14 lbs. | 4.50 | .35 | 30.00 |
| RED TOP GRASS. (<i>Agrostis Vulgaris</i> .) | 14 lbs. | 2.40 | .18 | 16.00 |
| Fancy recleaned silver seed | 32 lbs. | 9.50 | .32 | 28.00 |
| Rhode Island Bent Grass. (<i>Agrostis Canina</i> .) A very fine variety for lawns. About 3 bushels to the acre | 14 lbs. | 6.00 | .45 | 40.00 |
| Rough-Stalked Meadow Grass. (<i>Poa Trivialis</i> .) Valuable for pastures and meadows, particularly on damp soils. 1 1/4 bushels to the acre | 14 lbs. | 6.75 | .50 | 45.00 |
| SHEEP'S FESCUE. (<i>Festuca Ovina</i> .) Excellent for uplands and dry pastures, of close, dense and nutritive growth, relished by sheep | 12 lbs. | 4.00 | .35 | 30.00 |
| Sweet Vernal Grass. True Perennial. (<i>Anthoxanthum Odoratum</i> .) Very aromatic, giving hay a fine flavor | 10 lbs. | 7.00 | .80 | |
| TALL MEADOW FESCUE. (<i>Festuca Elatior</i> .) Very early, nutritive and productive. Valuable on wet or clay soils | 14 lbs. | 6.75 | .50 | 45.00 |
| TALL MEADOW OAT GRASS. (<i>Avena Elatior</i> .) Recommended for soiling, being rapid and luxuriant in its growth. 4 to 5 bush. per acre | 10 lbs. | 3.00 | .32 | 28.00 |
| TIMOTHY. (<i>Phleum Pratense</i> .) We offer a particularly "choice" sample, 1/2 bushel per acre. Price variable | 45 lbs. | 9.75 | .24 | 21.00 |
| Various-Leaved Fescue. (<i>Festuca Heterophylla</i> .) | 14 lbs. | 5.25 | .40 | 35.00 |
| Wood Meadow Grass. (<i>Poa Nemoralis</i> .) Of early growth and thriving well under trees. 2 bushels to the acre | 14 lbs. | 11.00 | .80 | 75.00 |



ORCHARD GRASS.

Send for HENDERSON'S FARMERS' MANUAL.

It illustrates all the best Grasses, gives full description and much information upon FARM SEEDS of inestimable value to the farmer.

MAILED FREE.

Henderson's Superior Recleaned CRIMSON OR SCARLET CLOVER

A Boon to Agriculture—A Gold Mine on Your Farm—Valuable as a Pasture, Green Forage and Hay Crop and Most Valuable for Quickly Restoring Fertility to Worn-Out Soils

The importance of this Annual Clover is realized more and more every year, not only as a pasture, green forage and hay crop, but as a cover crop and soil renovator. While it grows most luxuriantly on fertile loam, yet it will thrive better on thinner and poorer soils than Red Clover and is more efficient for green manuring than the latter.

Crimson Clover forms an upright branching plant 1 to 2 feet in height, according to soil, locality and season. It roots very deeply and is a bountiful provider of nitrogen.

As Hay—Cut when coming into full bloom, not later—and properly cured—it is even superior to Red Clover, is more nutritious, richer in protein and especially adapted for growing and working animals. The yield of cured hay on average soils is 2 to 3 tons per acre, on lighter soils less and on heavier, richer soils, phenomenally large crops have been produced.

For Green Forage and Silage it is of high feeding value, especially for dairy stock and is much relished by them. The average yield cut green before the flowers commence to mature is 8 to 15 tons per acre, though up to a 20-ton yield per acre is sometimes reported.

As Pasture Crimson Clover makes one of the best early spring pastures, supplying an abundance of nutritious herbage for several weeks if stock is turned on it when about 6 inches high.

As a Green Manuring Crop Crimson Clover is of the greatest value, particularly as its season of growth permits it to be sown in summer or early autumn after a grain or vegetable crop has been removed and then be plowed under the next spring. Thus it does not in any way interfere with other crops.

Plowing under a good crop of Scarlet Clover is equivalent to 20 tons of stable manure per acre, and even if the Clover be harvested or pastured, the benefits derived from the wonderful nitrogenous root formation will alone many times repay the cost of seed and labor.

It is the cheapest source of nitrogen, and has revolutionized the methods of farming in many States, has restored to profitable cultivation thousands of acres of poor land.

As a Cover Crop and winter soil mulch it is peculiarly well adapted. It may be sown among corn, tobacco, sorghum and other crops after the last cultivation and when the primary crop is removed the Crimson Clover will come on and cover the ground fall, winter and early spring. It is one of the best cover crops for orchards and small fruits, and also one of the best sources of nitrogen for them.

Harvesting and Feeding. Crimson Clover should not be fed either cured or green after the flowers begin to mature for the hairs of the calyx then begin to stiffen and harden and are apt to form troublesome "hair balls" in the stomachs of animals.

Seeding. Sow at the rate of 15 pounds of seed per acre, either broadcast or drilled. Cover lightly with a harrow. If sown too early, especially in Southern States, Crimson Clover is apt to mature and form seeds the same season without making full growth. In the latitude of New York City sow from July 15 to September 15, and in the South as late as October.

Price.—Henderson's choicest new Crop Crimson clover seed of highest growing quality, thoroughly re-cleaned and free from weed seeds. (See cut). 18 cts. lb., \$9.50 bushel of 60 lbs., \$15.00 per 100 lbs.



RED CLOVER. (*Trifolium pratense*)

Price, (subject to change without notice) Henderson's Superior Sample (extra re-cleaned), 28c. lb., \$15.00 bushel of 60 lbs., \$25.00 per 100 lbs.

MAMMOTH OR PEA VINE RED CLOVER.

(*Trifolium pratense perenne*)

Quite distinct from the common Red Clover, being of larger and coarser growth. Valuable for reclaiming exhausted lands. Sow (if alone) about 12 lbs. per acre; weight, 60 lbs. per bushel. Henderson's Superior Sample (extra re-cleaned). Price, 30c. lb., \$16.00 per bushel, \$26.00 per 100 lbs.

ALSIKE OR HYBRID CLOVER.

(*Trifolium hybridum*)

A hybrid intermediate in growth and appearance between Red and White Clovers. It is a perennial and one of the hardiest of all clovers, thriving particularly well in cool climates and stands freezing well. It is valuable for sowing with other grasses and clovers as it forms a thick bottom, increasing the yield of hay.

Sow (if alone) 8 lbs. per acre; weight, 60 lbs. per bushel. 30c. lb., \$16.00 bushel, \$25.00 per 100 lbs.

WHITE DUTCH CLOVER.

(*Trifolium repens*)

A very hardy creeping variety, which accommodates itself to a great variety of soils, but grows most luxuriantly in moist ground or in wet seasons. It is valuable in mixtures for permanent pastures and lawns. Sow (if alone) 8 lbs. per acre; weight, per bushel, 60 lbs. 50c. per lb., \$28.00 per bushel, \$45.00 per 100 lbs.

CLOVERS AND HOW TO GROW THEM.

A Splendid Book on the Subject by THOMAS SHAW
For Description, see page 16.

Price, \$1.00 Postpaid

U.S.
Government
Analysis
PROVES
Henderson's
RE-CLEANED
Alfalfa
SEED
The Purest

Henderson's Sample of Alfalfa, I am glad to say, stood at the head of twelve other samples sent by me to the Government for analysis. Kindly ship to me at Wilcox Wharf, James River, Va., enough to seed sixty acres.

E. A. SAUNDERS, JR.,
Richmond, Va.



Cutting a field sown with Henderson's Re-Cleaned Alfalfa Seed, on estate of Paul D. Cravath, Esq., Locust Valley, L. I., N. Y.

ALFALFA or LUCERN

(MEDICAGO SATIVA)

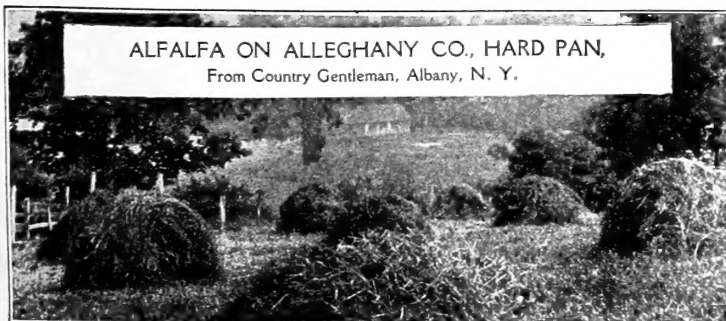
This clover-like, leguminous plant is perhaps the most valuable permanent cropper for forage and hay that is grown, yielding, when established, regardless of drought, enormous crops annually for many years. Three to six cuttings are usually harvested per season, aggregating three to eight tons of cured hay per acre, and a yield of eight to twelve tons under favorable conditions is not unusual. The feeding value of Alfalfa is very high, being rich in protein—the blood, muscle and bone-forming elements required for growing animals; it is also a rich milk and butter producer when fed to cows. It is greatly relished by all stock either in pasture or cut and fed green or as cured hay, and they all thrive on it, though there is danger that cattle and sheep may bloat if turned into a luxuriant pasture of Alfalfa while the dew is on.

Alfalfa is a great improver of the soil, gathering nitrogen from the air and adding it with humus to the soil when the deep-rooted stubble is plowed under, thus putting the land in fine condition for following crops. Alfalfa may be successfully grown in almost every State in the Union when the essential conditions can be supplied.

Its best development is attained under the particularly congenial conditions in the Western and Pacific Coast States, yet its cultivation is rapidly increasing in the Middle and Eastern States, as its requirements and culture are better understood. The Alfalfa plant grows three to five feet high and sends a single tap root down into the soil eight to twelve feet, and in deep, sandy soils twenty to thirty

"The Alfalfa Seed I got from you a year ago did fine. Have had two crops, and good prospects for a third."

C. E. SCHMUCKER, Watsonstown, Pa.



ALFALFA ON ALLEGHANY CO., HARD PAN,
From Country Gentleman, Albany, N. Y.

The Deepest Rooting Soiling and Hay Plant Grown,
Opens up the Subsoil. Adds Nitrogen and Humus
to the Land.

feet; in consequence, it thrives best where soil and subsoil will permit of deep penetration of the roots about which water must not stand. A congerial soil is sandy loam with permeable subsoil, though it will thrive in any sweet, well-drained soil excepting heavy clay and low, wet land. Calcareous soil suits it especially well.

Another essential is to get the plants well established. The young seedlings being rather delicate, the best results have been attained in the East where the seed has been drilled in during the summer in rows twelve to eighteen inches apart and then cultivated; by this method, the young plants keep ahead of the weeds and get a good, strong start, after which they are able to care for themselves. A small crop may then be taken off late in the season, provided it is cut early enough to allow five or six leaves to develop before winter sets in, or is cut about six inches above the ground. Full cropping must not be expected until the second year, but after a field of Alfalfa is established it lasts for a lifetime, continuing to yield annually, regardless of droughts, phenomenal crops, amply repaying the expenditure of time and trouble. Alfalfa should be cut as soon as it begins to flower.

The time to sow in the North and Eastern States is June, July or August, 30 to 40 lbs. per acre if broadcasted or 25 to 30 lbs. if drilled in; in the South sow in February or September. (See cut.)

Price, Henderson's Superior Alfalfa Seed, 30c. per lb.; \$17.25 per bushel of 60 lbs.; \$28.00 per 100 lbs.

"Please send me 1/2 bushel of your Alfalfa Seed. That I got from you last season did splendidly."

FRANK HOFFMAN, Andomink, Pa.

TWELFTH CONSECUTIVE CUTTING ON HARD-PAN LAND

That Alfalfa can be grown on a great variety of soils, we are continually having proved to us. The letter printed below gives the experience of a practical farmer in growing Alfalfa on hard-pan land.

HILL CREST FARM
"The Home of the Jerseys"

J. F. LANGWORTHY,
Owner.

ALFRED, N. Y., Sept. 26th, 1910.

PETER HENDERSON & Co.:

I am sending you a photo of my Alfalfa field, which has been growing five years last May and this is the twelfth cutting, yielding something over two tons per acre. I now have a fine field with the third crop, showing an even stand from eighteen to twenty inches high, nearly ready to cut, which proves conclusively that Alfalfa can be grown on hard pan hill land if rightly managed. You are at liberty to print this in your spring Catalogue. I have had quite a number of the State institute people to see it. They have contended that it was not possible to raise Alfalfa on clay subsoil. I think I have proved otherwise.—Respectfully,

JOHN F. LANGWORTHY.

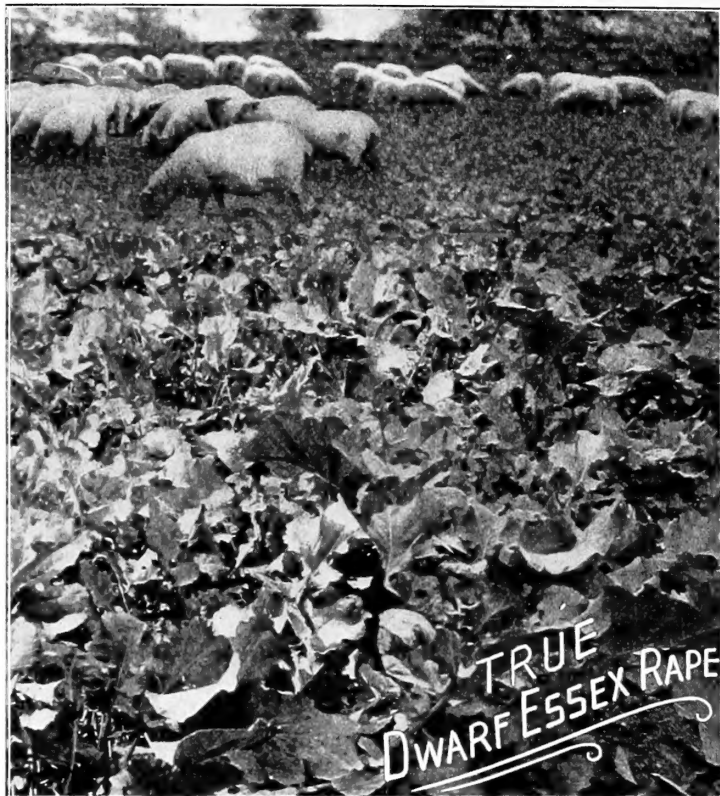
THE TRUE DWARF ESSEX RAPE

PROVIDES PERFECT PASTURE AND
IS GREATLY RELISHED BY ALL STOCK

INDISPENSABLE for SHEEP and HOGS

Sow in the North from April to end of August
in the South during September and October

In the United States we have millions of acres of good land that annually lie idle or run to weeds the latter part of the season, after the grain, potato and hay crops have been harvested, a large portion of which might be made to produce one of the finest feeds imaginable, and in the greatest abundance, at a time when cattle, sheep and hogs are roaming through bare pastures in search of a scanty living. Under favorable conditions it is ready for pasturing sheep or cattle within six weeks from time of sowing, and on an average one acre will carry twelve to fifteen sheep six weeks to two months. When on the Rape they should at all times have access to salt; but water is not necessary. There are several varieties of Rape, but care should be taken to procure the DWARF ESSEX, or English, as it is sometimes called, which does not seed the same season as sown, unless in some exceptional cases, as when sown too early and the young plant is touched by frost. In northern States it should be sown from April to end of August for fall pasturing, but as it thrives best in cool weather, it should not be sown in the Southern States until September or October for winter pasture. In the latitude of New York it should be sown in April, or in July or August. Its fattening properties are probably twice as good as those of Clover, and for sheep the feeding value of Rape excels all other plants we know of. At the Michigan Experiment Station 128 lambs were pastured for eight weeks on 15 acres of Rape sown in July, and showed a gain of 2,890 lbs., or at the rate of 3 lbs. per lamb each week. Even so far South as Alabama it has proved a boon to the farmer. In a recent bulletin published by the Alabama Experiment Station they state: "Quality of product good for both hogs and cattle. The growth was enormous. By repeated sowings it will and did carry more hogs through our dry,



hot summers than four times the amount of land planted in anything else ever grown here. I would recommend it to all Southern farmers." To secure the best results, the Rape should be sown in drills. Sow 4 lbs. per acre broadcast, 2 to 3 lbs. per acre on drills. (See cut.)

Price, 10c. per lb.; \$3.50 per bushel of 50 lbs.; 100 lbs., \$6.50. If by mail, add 8c. per lb.



SAND or WINTER VETCH (Vicia Villosa)

Though it succeeds and produces good crops on poor, sandy soils, it is much more vigorous on good land and grows to a height of 4 to 5 feet. It is perfectly hardy throughout the United States, remaining green all winter, and should be sown during August and September, mixed with Mammoth Red Clover, in sections where it will not winter-kill, or with Rye, which serves as a support for the plants; or in spring with Oats or Barley.

It is the earliest crop for cutting, being nearly a month earlier than Scarlet Clover, and a full crop can be taken off the land in time for planting spring crops. Being much harder than Scarlet Clover, this is the Forage Plant to sow in the Northern States, where Scarlet Clover winter-kills, though it is equally valuable in the South. Every dairyman and stockbreeder in the United States should have a field of it, and if you try it once you will never be a season without it.

It is exceedingly nutritious, much more so than Clover, is eaten with relish and may be fed with safety to all kinds of stock.

It will also prove valuable for a Hay crop in the South and dry Western regions, as it may be sown in the fall and will make a luxuriant growth during the fall and spring months, and will yield a heavy crop, which may be cut and stored before the droughts set in.

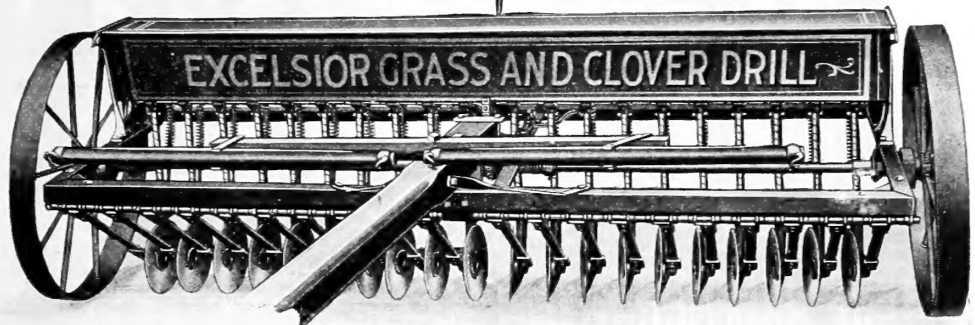
Sow one bushel per acre with one-half bushel of Rye or Wheat. (See cut.)

Price, 18c. per lb.; \$9.50 per bushel of 60 lbs.; 100 lbs., \$15.00. If by mail, add 8c. per lb.

ONE- AND TWO-HORSE POWER "Excelsior" Grass and Clover Seed Drills

For Re-Seeding Sod Land, Drilling Clover in Winter Wheat, Alfalfa, Etc.

They put the seed in either
NEW GROUND
OR OLD SOD
Without plowing

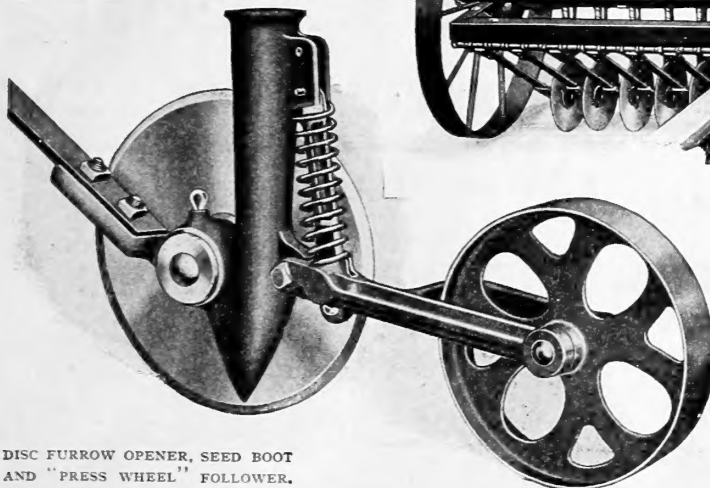


THE TWO-HORSE EXCELSIOR GRASS AND CLOVER DRILL.

The "EXCELSIOR" Grass and Clover Seed Drills

For Drilling in

GRASS SEED, CLOVER, ALFALFA,
TIMOTHY, MILLET, RAPE, FLAX, Etc.



DISC FURROW OPENER, SEED BOOT
AND "PRESS WHEEL" FOLLOWER.

These valuable new machines involve new principles in seeding, whereby the seed is put IN the ground whether freshly prepared—or old sod that needs replenishing without replowing or they will drill clover seed in winter wheat without injuring the latter. The seed is evenly distributed, wind or no wind, much or little as may be desired, and at any required reasonable depth according to how the machine is adjusted by the operator. The even distribution of the seed and its uniform depth insures an even stand—not too thick in some places and too thin in others. The illustration on the left shows how the above claims are accomplished. The revolving steel discs cut a narrow gash or trench in the ground or sod—the seed is forced through the "boot" the spout of which directs the seed into the trench when at its deepest, immediately under the rear of the cutting discs, the roller then follows, closing up the gash and of course covering the seed. As each disc, seed spout and roller work individually they therefore adapt themselves to inequalities of the ground, insuring a perfect stand, and the cutting (not tearing) of the old sod or wheat in this way has proven beneficial, a sort of a cultivation that relieves the hide bound condition. The machines have "force feeds" one to each disc and seed spout—every feed sows an equal amount of seed and a gauge regulates the quantity sown whether the machines are going fast or slow. The flow of seed can immediately be shut off by moving a lever.

The seed must grow because it is IN the ground and not on top of it. No seed is wasted. Birds can not get it, rain cannot wash it nor wind blow it away.

The discs are set at just the right angle for grass, clover and alfalfa seed, for the reason that they make narrow seed trenches and thoroughly pulverize the soil. They cultivate, but do not uproot the wheat plants in drilling clover in winter wheat.

"VELVETLAWN" Grass and Clover Drills have positive Force Feeds and the arrangement is such that the operator can sow in fractions of pounds, if he so desires. By means of the clutch, the Feeds may all be thrown out of commission and the discs can remain in the ground, and the machine be used as a disc cultivator.

Every Press Wheel tracks in the furrow. These Press Wheels pack the earth just right to conserve the moisture.

On the two-horse Drill the discs are set four inches apart and on the one-horse Drill the discs are three inches apart. By means of covers, which are furnished at a slight additional cost, the seed can be drilled in any multiple of three inches on the one-horse Drill and in any multiple of four inches on the two-horse Drill. For instance on the latter there are twenty discs, four inches apart, therefore the seeding width is 76 inches. Thus the seed can be drilled in rows either 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, or 76, inches apart. The one-horse Drill has sixteen discs set three inches and will drill in rows either 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, or 45 inches apart.

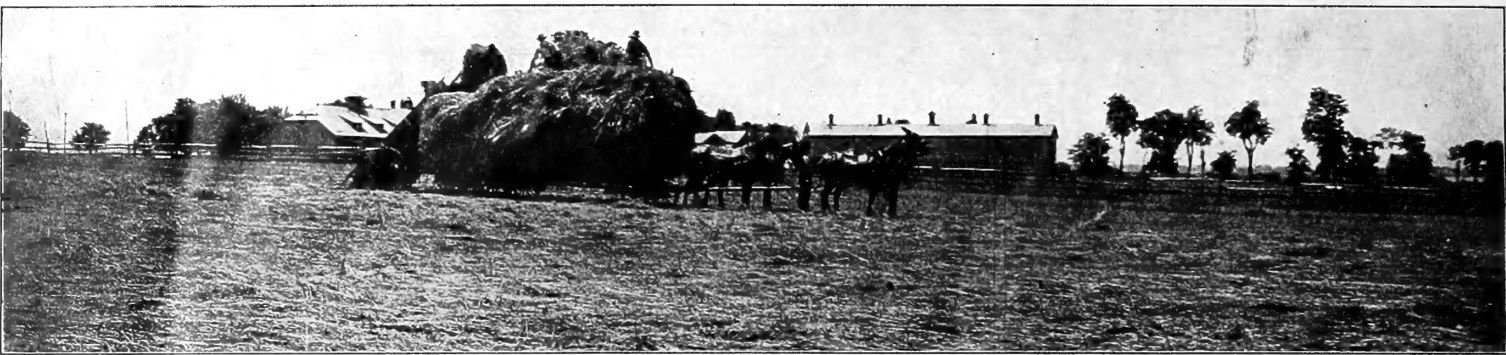
The Two-Horse Excelsior Grass and Clover Drill has 20 single discs, set four inches apart, and is furnished complete with two-horse hitch and neckyoke. The steel wheels have staggered spokes, with broadfaced 3-inch tires. The frames are of highest grade angle steel, thoroughly braced and reinforced. The hoppers have large carrying capacity. Two small horses handle this machine with ease. Ratchets in both wheel hubs. Steel Ribbon Conductor Tubes. Weight for shipment 725 lbs. Price net with press wheels, \$67.00.

The One-Horse Power "Velvetlawn" Seeder has 16 discs with accompanying seed spouts and rollers. These sow 3 inches apart or a strip four feet wide. It is very light in draft and can be operated by any boy who can drive a horse. Shipping weight 505 lbs. Price net with press wheels \$55.00.



ONE-HORSE EXCELSIOR GRASS AND CLOVER DRILL.

Send for our "Implement Catalogue," Which Illustrates and Describes all The Latest Hand and Horse Power Tools and Implements



HENDERSON'S SPECIAL GRASS MIXTURES

FOR.. HAY ..AND
PERMANENT PASTURE

HAVE SEEDED
THOUSANDS OF ACRES
IN
AMERICA.

THE LARGEST
STOCK FARMS,
PROGRESSIVE
FARMERS,
AND THE
AGRICULTURAL PRESS
..PRAISE..

HENDERSON'S
SPECIAL GRASS
MIXTURES.

Henderson's Special Grass Mixture :: ::

FOR HAY AND PERMANENT PASTURE

IS USED BY

AMERICA'S PROGRESSIVE FARMERS

AND ON

AMERICA'S NOTED FARMS

AMONG WHICH WE MENTION :

| | | |
|---------------------------|---------------------|-------|
| Mr. F. W. ADAMS | "Adams's Farm" | Ky. |
| ARDEN FARMS DAIRY CO. | "Arden Farms" | N. Y. |
| Col. JOHN JACOB ASTOR | "Ferncliff Farm" | N. Y. |
| Mr. O. H. P. BELMONT | "Brookholt Farms" | N. Y. |
| Mr. J. C. COLGATE | "Filmore Farms" | Vt. |
| Mr. W. C. CHOATE | "Rosemary Farm" | Conn. |
| Dr. EVERETT M. CULVER | "Brookmede Farm" | Mass. |
| Col. W. CUTTING | "Meadow Farm" | Mass. |
| Mr. JOHN M. DILLON | "Overleigh Farm" | N. J. |
| Ex-Senator JOHN F. DRYDEN | "Stronghold Farm" | N. J. |
| Mr. J. B. DUKE | "Duke's Farms" | N. J. |
| Mr. J. B. HARRIMAN | "The Harriman Farm" | N. Y. |
| Mr. COLGATE HOYT | "Eastover Farm" | N. Y. |
| Col. WM. JAY | "Jay Farms" | N. Y. |
| Mr. F. B. JENNINGS | "Fairview Farm" | Vt. |
| Mr. WALTER JENNINGS | "Burrwood Farm" | N. Y. |
| Col. D. A. KANE | "The Paddocks" | N. Y. |
| Mr. WALTER W. LAW | "Briar Cliff Farms" | N. Y. |
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| Hon. LEVI P. MORTON | "Ellerslie Farm" | N. Y. |
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| Mr. R. H. McPOTTER | "Pequest Farm" | N. J. |
| Mr. ARCHIBALD ROGERS | "Crumwold Farms" | N. Y. |
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| Senator SCOTT | "The Scott Farm" | Va. |
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| Mrs. F. M. SMITH | "Esperanza Farm" | Ct. |
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| Dr. W. SEWARD WEBB | "Shelburn Farms" | Vt. |
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